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Forests and economic development

Conclusions and recommendations for addressing key challenges of forests and economic development

Report of the Secretary-General

Summary

The present report sets out conclusions and recommendations for the consideration of the United Nations Forum on Forests in addressing key challenges in the context of the overall theme of the tenth session, "Forests and economic development", based mainly on the report of the Secretary-General on forests and economic development (E/CN.18/2013/4). Forests make significant contributions to international trade and economies, provide vital subsistence benefits and constitute reservoirs of social, economic and environmental values.

In order to further enhance the contributions of forests to economic development, a number of actions and policies are needed at the local, national and international levels. The range of policy actions include the promotion of cross-sectoral and cross-institutional collaboration, the further integration of sustainable forest management into national economic development strategies, and capacity-building for systematic forest data and information, particularly on the non-cash and informal benefits that forests contribute to economic development.

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I. Introduction

1. Forests cover nearly 31 per cent of the global land area, at approximately 4 billion ha.[1] They provide vital subsistence benefits, generate formal and informal work opportunities and constitute reservoirs of social, economic and environmental values that help build the resilience of communities, particularly the rural poor.

2. Forests make significant contributions to international trade and economies at all levels. The formal forestry sector's contribution to global gross domestic product (GDP) (from roundwood production, wood processing and pulp and paper) is estimated to be nearly $468 billion annually.[2] Close to 60 million people are employed by forest-based industries (wood, pulp and paper and other processing plants).[3]

3. Forests' contributions to rural economies and households tend to be through the direct consumption and barter of forests products, which provide energy, shelter and furnishings, medicine and food security and support health. While rural populations rely more heavily and directly on forests, what urban populations gain from forests — clean water, energy, building materials for housing and health benefits, among others — is no less vital.

II. Conclusions

A. Forests and economic development

4. The material and cash benefits of forests generally tend to be better recognized, while the non-cash contributions of forests, including non-wood forest products, ecosystem services, tourism and cultural benefits, are largely invisible. Non-cash income from forests comes from forest products that households collect but consume or use in the home or, rather than sell, trade as barter for other goods and services.

5. Since the 1980s, the formal forestry sector's contribution to GDP from roundwood production, wood processing and pulp and paper has increased to nearly $468 billion, accounting for nearly 1 per cent of total global GDP. However, it is important to note that the informal forest sector is far larger than the formal, cash-based sector and that the value of the informal, non-cash benefits could be two to three times greater than the GDP figures.

6. The non-cash contributions of forests, including non-wood forest products, ecosystem services, medicinal uses, tourism and cultural benefits, are generally unaccounted for in national economic planning and international data. Part of the challenge is that the cash and non-cash uses of forests are often so intertwined at the household and community levels that their contributions cannot be easily disaggregated.

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[1] Food and Agriculture Organization of the United Nations (FAO), *Global Forest Resources Assessment 2010* (Rome, 2010).

[2] FAO, *State of the World's Forests 2011* (Rome, 2011).

[3] William V. Street Jr. and Sarah Price, "The Forests Dialogue review: advancing poverty reduction and rural livelihoods through sustainable commercial forestry", The Forests Dialogue Publication No. 4 (New Haven, Yale School of Forestry and Environmental Studies, 2009).

7. Furthermore, the cash value of non-wood forest products, such as mushrooms, fruits, medicinal products, shea butter, honey, nuts and oil, varies highly by "tradable" value and rarity of the product, location and market access.

8. While the role of forests in rural development is not yet well recognized, studies have shown that forests provide indirect yet reliable pathways out of poverty.[4] In particular, rural communities often utilize a dual income-generating strategy that capitalizes on synergies between forests and agriculture, including through investment in livestock and agroforestry.

B. Cross-sectoral linkages

9. As the global demand for food, fiber, energy and water continues to drive development priorities, forests are often caught between competing needs for economic, social and environmental goods. In a globalized world with finite resources, developments in non-forest sectors have a direct impact on forests. At the same time, the contributions of forests through sustainable forest management have a positive impact on and offer solutions for other sectors. Some of the key sectors that directly interact with the forest sector include agriculture, water, energy, transport and mining.

10. Agriculture has been the primary driver of deforestation since the 1960s and continues to drive deforestation in Latin America, Africa and Asia.[5] It is likely that mosaics of cropland, pastures, agroforestry, tree plantations and natural forests will play a major role in the future, meeting the need for both agricultural and forest products.[6]

11. Three quarters of the freshwater used for household, agricultural and industrial needs is provided through forested catchments.[7] Some countries have developed integrated water resource management plans at the watershed or river basin levels, which take into account the role of forests in filtering and regulating water flows.

12. More than 3 billion people globally are dependent on fuelwood for cooking and heating.[5] Developing countries account for nearly 90 per cent of the consumption of fuelwood and charcoal. The demand for energy will continue to put pressure on forests until sustainable cost-effective energy alternatives are found.

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[4] Gill Shepherd, Cornelius Kazoora and Daniel Müller, "Forests, livelihoods and poverty alleviation: the case of Uganda", paper prepared for FAO, July 2012.

[5] Uma Lele and others, "Changing roles of forests and their cross-sectoral linkages in the course of economic development", background paper prepared for the United Nations Forum on Forests, 2013.

[6] Center for International Forestry Research, World Agroforestry Centre, Bioversity International and International Center for Tropical Agriculture, "Forests, trees and agroforestry: livelihoods, landscapes and governance — proposal", February 2011. Available from www.cifor.org/fileadmin/fileupload/crp6/CRP6_7feb_lowres.pdf. See also Janet Ranganathan and Craig Hanson, "A new approach to feeding the world", September 2011. Available from http://insights.wri.org/news/2011/09/new-approach-feeding-world.

[7] Martin Parry and others, eds., *Climate Change 2007: Impacts, Adaptation and Vulnerability* (Cambridge, United Kingdom, Cambridge University Press, 2007).

13. Roads often contribute to deforestation by opening up forests to agriculture or logging and facilitating settlement in uninhabited areas.[8] At the same time, they play a role in agricultural and rural development and poverty alleviation, which need to be balanced with the long-term impacts on forests. Such an approach should be utilized for other sectors as well.

14. Forests and mineral-rich areas often overlap. For example, approximately 75 per cent of active mines and exploration areas are found in areas of high conservation value and high watershed stress.[9] Mining in forest areas often accelerates land conversion, habitat fragmentation and the loss of biodiversity.

15. Forests have a direct impact on human health. Between 65 and 80 per cent of the global population relies on naturopathic or homeopathic medicines derived from forests as its primary form of health care, according to estimates by the World Health Organization. Over 50 per cent of prescribed medicines originate from natural sources.[10] At the same time, deforestation and forest fragmentation are linked with the emergence of new infectious diseases.[11]

C. Key trends affecting the future of forests

16. Rapid economic change and the movement of capital and labour across boundaries create varying patterns of supply and demand, as well as changes in consumption and production. The interplay of these factors has a profound impact on forests. Economic growth is expected to continue to drive new investment in infrastructure, especially in developing countries. Investment in roads and pipelines for the mining and gas industries alone is estimated to be $5 trillion to $10 trillion or more.[12] This trend is particularly relevant for the contiguous tropical forest countries of the Amazon, the Congo Basin and South-East Asia.

17. Demographic changes are increasing demand for and pressure on natural resources, including forests. Urbanization and income growth are linked to increased demand for food and caloric consumption, along with a shift to higher-value crops and products, such as livestock, fisheries, fruits and vegetables. Meeting the needs of a larger, richer, older, more urban and mobile global population will thus require increases in forest and agricultural productivity, which may require more forest area to be cleared.

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[8] Alexander S. P. Pfaff, "What drives deforestation in the Brazilian Amazon? Evidence from satellite and socioeconomic data", *Journal of Environmental Economics and Management*, vol. 37, No. 1 (1999).

[9] Marta Miranda and others, *Mining and Critical Ecosystems: Mapping the Risks* (Washington, D.C., World Resources Institute, 2003).

[10] Eric Chivian and Aaron Bernstein, eds., *Sustaining Life: How Human Health Depends on Biodiversity* (New York, Oxford University Press, 2008).

[11] Walter V. Reid and others, *Millennium Ecosystem Assessment 2005: Ecosystems and Human Well-being — Synthesis* (Washington, D.C., World Resources Institute, 2005).

[12] Ian Bannon and Paul Collier, eds., *Natural Resources and Violent Conflict: Options and Actions* (Washington, D.C., World Bank, 2003); Johanna Carstens and Gavin Hilson, "Mining, grievance and conflict in rural Tanzania", *International Development Planning Review*, vol. 31, No. 3 (2009); Denis M. Tull, "China's engagement in Africa: scope, significance and consequences", *Journal of Modern African Studies*, vol. 44, No. 3 (2006).

18. Carbon stored in trees, understorey vegetation, biomass and soil is estimated at 650 billion tons, which exceeds the amount of carbon currently in the atmosphere.[13] Deforestation and land-use change account for 17 per cent of total human-generated carbon dioxide emissions. Climate change has a significant impact on forest biodiversity, forest health and the productive and protective functions of forest resources.

19. Forests play an important role in building human resilience against natural disasters: they safeguard biodiversity and livelihoods, stabilize mountain slopes to prevent landslides, protect coastal communities against tsunamis and restore wetlands to maximize flood regulation.[14]

D. Challenges in enhancing the economic contributions of forests

20. In general, the most important contributions of forests to economic development are not in the form of monetary income, but rather in what they provide for the welfare of marginalized and vulnerable forest-dependent communities. This is particularly true for the very poor in rural areas, for whom the livelihood and subsistence benefits from forests are far more critical than timber values. Forests also provide multiple ecosystem services, such as climate regulation and water purification, and it remains a challenge to place a monetary value on these vital services. These values are often overlooked and not quantified.

21. Better systematic forest data are needed, particularly on the non-cash and informal benefits that forests generate, including through non-wood forest products and ecosystem services. Because the value of such goods and services is significantly larger than that of cash-based products, they serve as buffers during periods of scarcity and as nutrition for the cash-poor. Furthermore, advances in information and knowledge, including on cash and non-cash values, are essential preconditions for better governance and greater political support for forests in order to contribute to changing laws and policies.

E. Key opportunities for forests and economic development

22. As land-use planning continues to adapt to meet the growing demand for food, energy and water, landscape-level planning at the national and subnational levels to balance competing needs will matter far more in the future.

23. Integrated approaches to landscape management aim to increase synergies among multiple land-use objectives, so that goods and services from forests and trees are better understood and there is recognition of the interlinkages between forests and agricultural productivity, soil protection, water supply and distribution, biodiversity conservation and other sectors. National forest and equivalent programmes have an important role in this regard, as they can serve as a cross-sectoral platform to integrate other sectors, including agriculture and water, into forest management plans and programmes.

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[13] FAO, *Global Forest Resources Assessment 2010*.

[14] United Nations Environment Programme, "Opportunities in environmental management for disaster risk reduction: recent progress". Available from www.preventionweb.net.

24. Nearly 2 billion ha of land worldwide offer potential for restoration,[15] which can enable large areas of currently degraded forest lands to be productive, deliver goods and services and relieve pressure on contiguous areas of forests. Agroforestry and related systems present opportunities for more intensive planting and the use of tree products for food, feed and other commodities.

25. Current forest-related data do not take into account economic activities and benefits from forests that are (a) not exchanged for cash; (b) in the informal sector; and (c) not recognized by forest, economic development, trade or finance authorities. The systematic collection and analysis of such data are necessary to promote the recognition of the full extent of the economic contributions from forests.

26. Better forest data and information could ultimately inform consumers and businesses about the sourcing of commodities and raise awareness about zero-deforestation commodities and sustainably produced products, as well as relevant procurement policies.

III. Recommendations for consideration by the United Nations Forum on Forests

A. Member States

27. **The Forum may wish to encourage Member States:**

(a) To re-emphasize the importance of the cross-sectoral nature of sustainable forest management, its interconnections with other sectors in addressing issues related to economic development, in particular poverty alleviation and sustainable livelihoods;

(b) To promote cross-sectoral and cross-institutional collaboration through a landscape approach at the national and subnational levels that brings together forest-dependent communities, the private sector and local governments and share lessons learned in implementing a landscape approach to assist in achieving sustainable forest management;

(c) To further integrate sustainable forest management into national economic development strategies through national forest programmes and natural resource planning processes;

(d) To strengthen the recognition and evaluation of the full range of forest values, including through natural resource accounting, and improve capacities for data and information collection and analysis to better assess the impact of land-use changes on forests, the cash and non-cash contributions of forests to economic development and their cross-sectoral linkages;

(e) To further strengthen North-South and South-South cooperation for knowledge-sharing and capacity-building on forests and economic development.

[15] Global Partnership on Forest and Landscape Restoration, www.ideastransformlandscapes.org.

B. Members of the Collaborative Partnership on Forests

28. The Forum may wish to invite members of the Collaborative Partnership on Forests:

(a) To assist Member States, upon request, in developing strategies and building capacities in data gathering and analysis that integrate forests and other sectors;

(b) To develop a road map for the harmonization of the collection and compilation of data on forest resources, including non-wood forest products, in order to facilitate the estimation of the full extent of forest resources, building on existing efforts, including the Collaborative Forest Resources Questionnaire of the Food and Agriculture Organization of the United Nations (FAO), the Wealth Accounting and the Valuation of Ecosystem Services partnership, the Economics of Ecosystems and Biodiversity, the Green Economy Initiative, the System of Environmental-Economic Accounting, the OECD green growth strategy and the Poverty-Environment Initiative of the United Nations Development Programme and the United Nations Environment Programme;

(c) To further enhance cross-sectoral approaches in forests and other natural resource programmes, including building on the work of the Global Partnership on Forest and Landscape Restoration, as a means of instituting effective land-use systems.

C. Donors and regional and international organizations

29. The Forum may wish to invite donors and regional and international organizations, including the Forum secretariat:

(a) To provide financial resources, assist with the capacity development of and technology transfer to developing countries and countries with economies in transition, in particular low forest cover countries, small island developing States, countries in Africa and least developed countries, to support their efforts to gather information and data on forests and economic development, including cross-sectoral benefits, non-cash forest benefits (including non-wood forest products) and ecosystem services;

(b) To provide financial resources to support members of the Collaborative Partnership on Forests in strengthening their existing data collection and analysis efforts on a long-term basis in order to improve data availability on forests, including non-wood forest products, in a continuous, systematic, coordinated and coherent manner;

(c) To provide financial resources to support the Forum's facilitative process in addressing information and data gaps related to forests and economic development, as part of its intersessional activities in preparation for the eleventh session, to be held in 2015, in collaboration with countries and members of the Collaborative Partnership on Forests.

D. Major groups

30. **The Forum may wish to call upon major groups, in particular civil society, the private sector and the scientific and technological communities:**

(a) **To promote cross-sectoral and cross-institutional collaboration through a landscape approach at the national and subnational levels, working with forest-dependent communities and local governments and sharing lessons learned in implementing a landscape approach to the sustainable management of forests;**

(b) **To contribute to data and information collection and analysis through independent research and relevant studies on the impact of land-use changes on forests, the cash and non-cash contributions of forests to economic development and related laws and policies that need innovation to capture cross-sectoral linkages and impacts.**

E. Forum secretariat

31. **The Forum may wish to request its secretariat:**

(a) **To continue to perform a leadership role in evaluating and maintaining data and information on forest functions and values, including at the national and subnational levels;**

(b) **To build partnerships and a programme of work with economic organizations, including the World Bank, and regional banks and invite them to work collaboratively with the Forum to further integrate forests into their economic programmes;**

(c) **To contribute to the Wealth Accounting and the Valuation of Ecosystem Services programme headed by the World Bank;**

(d) **To conduct activities to address information and data gaps related to forests and economic development as part of the intersessional activities of the Forum's facilitative process in preparation for the eleventh session, to be held in 2015, in collaboration with countries and members of the Collaborative Partnership on Forests;**

(e) **To significantly strengthen its partnership with the private sector in the global North and South;**

(f) **To further refine and streamline forest reporting at the national and subnational levels and working with economic data collection and analysis processes, in particular by building on the existing collaboration with FAO and broadening it to other members of the Collaborative Partnership on Forests with reporting functions in economic areas (cash and non-cash), including the secretariats of the Convention on Biological Diversity and the United Nations Convention to Combat Desertification, the World Bank and the United Nations Environment Programme;**

(g) To contribute to the United Nations-led post-2015 development agenda and sustainable development goals processes to fully integrate the cash and non-cash values and functions of forests, recognizing the economic, social and environmental aspects of forests;

(h) To develop innovative tools to communicate the contributions of forests to economic development, in particular poverty eradication, and engage decision-makers in further considering forest-related concerns in international and national policy agendas, including the post-2015 development agenda.